## CLAIMS:

1. A coded image capture and decoding system comprising: an optical system that captures image data from coded targets;

a first processing circuit, coupled to the optical system, that generates a plurality of images based on image data received from the optical system;

an image buffer, coupled to the first processing circuit, that stores the plurality of images generated by the first processing circuit; and

a second processing circuit, coupled to the image buffer, that, after the plurality of images are stored in the image buffer, attempts decode processing of the plurality of images.

- The coded image capture and decoding system of claim 1 wherein the second 2. processing circuit constructs a composite image from the plurality of images for decode processing.
- The coded image capture and decoding system of claim 1 wherein the plurality 3. of images constitutes a predetermined number of images.
- The coded image capture and decoding system of claim 1 wherein the first 4. processing circuit performs proximity screening of the image data from the optical system.

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- 5. The coded image capture and decoding system of claim 1 wherein the first processing circuit converts the image data received from the optical system into a plurality of transition points.
- 6. The coded image capture and decoding system of claim 1 further comprising a proximity circuit which detects the presence of the coded target and initiates capture cycling.
- 7. The coded image capture and decoding system of claim 1 wherein the second processing circuit attempts parallel decode processing of the plurality of images.
- 8. A coded image capture and decoding system comprising:
  - an image processing circuit that generates a plurality of coded images;

an image buffer, coupled to the image processing circuit, that stores the plurality of coded images generated by the image processing circuit;

a host processing circuit that performs decode processing of coded images; and interface circuitry that assists in delivering the plurality of coded images to the host processing circuit for decoding after the plurality of coded images have been stored in the image buffer.

- 9. The coded image capture and decoding system of claim 8, further comprising an optical system operably coupled to the image processing circuit, wherein the optical system reads a target to produce image data and transmits the image data to the image processing circuit.
- 10. The coded image capture and decoding system of claim 8 wherein at least one of the plurality of coded images constitutes a reference image and at least one other of the plurality of coded images constitutes a plurality of differences based on comparison with the reference image.
- 11. The coded image capture and decoding system of claim 10 further comprising a proximity detector that enables operation of the coded image capture and decoding system whenever a target/is detected.
- 12. The coded image capture and decoding system of claim 8 wherein proximity screening rules are applied by the image processing circuit.
- 13. The coded image capture and decoding system of claim 8, further wherein the image processing circuit attempts to generate a predetermined number of coded images.

- 14. The coded image capture and decoding system of claim 8 wherein at least one of the coded images comprises a plurality of values, and each value represents a transition-point in the image.
- 15. A coded image capture and decoding system comprising:

  an image buffer that stores a plurality of images representative of a coded target;

  a host processing circuit, operably coupled to the image buffer, that performs decode processing; and

code processing circuitry that selectively directs the host processing circuit to decode the plurality of coded images.

- 16. The coded image capture and decoding system of claim 15 wherein the host processing circuit selectively responds to the code processing circuitry to control the time at which decode processing will be performed.
- 17. The coded image capture and decoding system of claim 15 further comprising interface circuitry that assists in delivering the plurality of images to the host processing circuit for decoding after the plurality of images have been stored in the image buffer.
- 18. The coded image capture and decoding system of claim 17 wherein the interface circuitry utilizes wireless transmissions in the delivery of the plurality of images to the host processing circuit.

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